



**WORKING PAPER**

**ASSEMBLY — 39TH SESSION**

**TECHNICAL COMMISSION**

**Agenda Item 35: Aviation safety and air navigation standardization**

**DEVELOPMENT OF SARPS FOR AIR AMBULANCE OPERATIONS**

(Presented by South Africa)

**EXECUTIVE SUMMARY**

This paper demonstrates an increased need for research and development of the medical requirements for air ambulances to ensure harmonized Standards and Recommended Practices (SARPs). The standardization of these processes will ensure that appropriate measures are applied when transporting passengers with confirmed medical conditions while improving aviation safety. There is a need therefore, for ICAO to develop air ambulances SARPs which will be scientifically orientated with the emphasis on the practical aspects of medical transfer with focus on training, research, equipment, information, documentation, standardization and logistics.

**Action:** The Assembly is invited to:

- a) request the ICAO Council to establish a Study Group to undertake the tasks as outlined in paragraph 3; and
- b) directs ICAO to consider establishing a global data collection and analysis system on the mortality and morbidity for a variety of medical conditions including possible spread of diseases associated with air ambulance.

<i>Strategic Objectives:</i>	This working paper relates to the Safety Strategic Objective.
<i>Financial implications:</i>	Activities will be covered within the ICAO regular budget.
<i>References:</i>	Assembly Resolution A35-12, Protection of the health of passengers and crews and prevention of the spread of communicable diseases through international travel. Doc 8335, <i>Manual of Procedures for Operations, Inspection, Certification and Continued Surveillance</i> Doc 9734, <i>Safety Oversight Manual</i> Doc 10004, <i>2014 – 2016 Global Aviation Safety Plan</i>

## 1. INTRODUCTION

1.1 There is a growing number of air ambulance operations in ICAO Member States, especially in Africa. These operations are mainly run by private operators whose main focus is commercial with little or no consideration for medical conditions of patients as well as the suitability of the aircraft for patient transportation.

1.2 Currently there are no ICAO approved SARPs on medical requirements for the training of medical personnel, appropriate equipment, logistics standardization and processing of documentation. The Civil Aviation Authorities are currently focusing primarily on the aviation component, particularly licensing, medical certification, managements of public events in airlines, etc.

1.3 This lack of available SARPs has resulted in individual States managing these issues in accordance with their own local legislation or even leaving it to the operators to determine their own standards.

## 2. DISCUSSION

### 2.1 Improving patient outcome

2.1.1 Medical circumstances or patient condition should be dealt with by an air ambulance operator with appropriately trained personnel, suitable equipment and sufficient resources to deal with specific medical conditions or levels of care (example basic life support, intensive and paediatric care, etc.)

2.1.2 The suitability of the equipment should cover the type and category of aircraft as well as on-board medical equipment.

2.1.3 There is therefore a need for harmonized standards in this regard so as to improve the patient outcome, thereby decreasing mortality.

### 2.2 Spread of communicable disease

2.2.1 Over the years, States have witnessed reasonable growth in medical tourism (movement of patients from one country to another seeking better treatment and facilities). This movement of patients has resulted, in certain instances, in a number of cases where communicable diseases have been spread to other countries.

2.2.2 Even the utilization of air ambulance operations to transport patients suspected of having communicable diseases does not eliminate the risk of spreading the disease due to the lack of harmonized standards and procedures for transporting and handling such passengers.

### 2.3 Safety Implications

2.3.1 There is a potential risk of some medical equipment interfering with the aircraft avionics. This may have a serious safety implication.

2.3.2 It is desirable that the suitability and standards of aviation medical categories be defined according to:

- a) aircraft type (fixed wing or rotor);
- b) nature of flight operation (commercial or non-commercial);
- c) aircraft range;
- d) aircraft avionics, etc..

### 3. **PROPOSED WAY FORWARD**

3.1 In order to effectively address this challenge, it is proposed that a Council Study Group be established to conduct a global baseline analysis of the number of air ambulances (fixed wing and rotor), and assess the need for the development of scientifically based Medical SARPs relating to Air Ambulance transfers and mainly focusing on personnel training, equipment, information, documentation and logistics.

3.2 The Study Group should define categories of air ambulances for regional and intercontinental operations; those with the capacity to conduct primary transfer from the scene to the receiving hospital emergency; secondary transfer which focuses on inter-hospital transfer; and commercial flight escorts.

3.3 The mandate of the Study Group may include the development of SARPs for transportation of different categories of patients, like adults, paediatric, neonate critical care and advanced critical care.

3.4 The Study Group should take into consideration well established and advanced regulatory provisions applied by member States. This will assist in determining the benefits and challenges of regulating this aspect of air ambulance operations.

### 4. **CONCLUSION.**

4.1 The need for bringing together the aspects of aviation and medicine in such a way that appropriate standards are created and categorised to ensure that members of the public have access to services which are appropriately resourced, cannot be over emphasized.

4.2 air ambulance services should aspire to, or at least maintain internationally recognised Standards, which should be applied by each air ambulance service in accordance with the category for which they are authorised.